

SOME GEOLOGICAL OBSERVATIONS.

The Result of Six Months' Investigation Set Forth for Our Readers.

Mr. J. W. Ryder Explains Some of the Peculiar Features of the Yukon Valley—The Country is Rich and Only Requires Favorable Legislation to Insure Development.

DAWSON CITY, N. W. T., August 4, 1898. I give below the particular results of six months' careful and continuous investigation of the mineral resources and geological conditions of this district. These results, while by no means conclusive and in many cases unsatisfactory to me, will serve to give a general idea of the conditions under which gold is found here.

The most remarkable and to my mind the only peculiar feature of the section that has come under my observation (a section comprising the country from Dyea to Dawson, from Haines Mission to Ft. Selkirk, up the Stewart to McQueston and the entire developed ground of the Klondike and Indian River districts), is the existence of a remarkably well-defined bench or ancient water-level. This old river channel ranges from about 200 feet above the present water-level at Lake LeBarge, where it is first observed, to approximately 200 feet at Dawson, and follows nearly the line of the present streams. In many places it is almost, and even entirely obliterated, but in general is remarkably well-preserved.

That the old benches are the result of water rather than glacial action, is now generally conceded, and is shown conclusively by the presence on their tops throughout their entire length of carefully assorted deposits of gravel, boulders and sand, rather than the miscellaneous mass of easily distinguished glacial drift. These ancient gravel beds, or the wash-down from them with its naturally attendant concentrating action, are the auriferous strata of the entire Yukon belt.

Geologically they belong to the Paleozoic age but to exactly what period I have so far been unable to determine. A full appreciation of the part these old streams played in the deposition of gold must be had in order to prospect here intelligently.

Only certain sections of these deposits have so far proven phenomenally rich. The most noticeable is, of course, the Eldorado and Bonanza creek section of the Klondike. Here, as everywhere in the Yukon belt, it will be noted that with a few local exceptions, glaciers have played practically no part in the formation of placer deposits—no glacial drift is found, nor have I seen any bedrock marked by the distinctive glacial scorings. The recent remarkable discoveries on French Hill, above Eldorado, where they wash out \$1,000 per day to the rocker, and on Skookum, above Bonanza, have proven conclusively that the old benches are fully as rich as the creek diggings, and that the richness of the deposits on Eldorado and Bonanza is entirely dependent upon the proximity of the ancient channel, is further shown by the fact that whenever they intersect and for a certain distance below, the creek claims are rich, and that nuggets weighing as high as \$15 and \$20 are frequently found in the creek claims below lying on a false bed-rock of frozen muck and drift, and entirely separate from any gravel or wash—thus proving conclusively that they must have come down singly from the rich benches above.

Having determined that the old channel is the true primary gold conductor, it by all means behooves the prospector to follow it and carefully explore any small streams found cutting it, and by all means to examine any long, low ridges or hogbacks, running at right angles across any of these old channels, that could have acted as a natural riffle.

When one realizes that the old Eldorado channel was much wider and of correspondingly greater length it can readily be seen what a field this opens to the prospector. It is by no means probable that the phenomenal richness of this particular section will be maintained throughout the entire length of all these old streams, but until they have been thoroughly explored their possibilities can only be guessed at.

Few people, even mining men have any conception of what "pay dirt" on the Klondike last year meant. None of the ground is what could be termed "shallow diggings." Nearly all had to be drifted out at an expense of at least four times the cost of sinking in solid rock in the lode claims of the Rocky mountains. With provisions at from 50c to \$1.50 per pound at mine, wood \$40 per cord and wages \$15 per day it would be difficult to find anywhere else on earth dirt that could pay the Crown a ten per cent. royalty on the gross output and still net the owners as in some cases from a quarter to a half a million in a single season.

The era of high prices is however past. This season's influx of fortune hunters has sent wages down from \$1.50 to 75c, and \$1.00 per hour. The completion of tramways and railways over the passes with their connecting lines of lake and river steamers, have made possible freight contracts at 7c. from Dyea to Dawson. Prices on all supplies have dropped fifty per cent., making possible the profitable working of ground that was formerly unworked.

On Stewart river alone there are thousands of acres of old benches that will run from 10c to \$4.00 per yard, conveniently situated for hydraulicing and with comparatively little "stripping" to be done. On my recent trip up that river I took considerable pains to investigate this feature, sunk three holes to bed rock with the above results. Under more favorable mining regulations giving some security of

title of longer leases and an increased acreage, I know of no more promising field for capital. It is almost an established fact that some of the tributaries of this river cut the old Eldorado channel and with 5000 men prospecting every creek and gulch, it is not surprising that we hear every day rumors of fresh strikes. The bedrock formation differs somewhat from that of the Klondike, being chiefly the massive gneiss of the Laurentian while that of the Klondike is principally the chloritic schists, dioritic and serpentine of the Huronian, a somewhat later formation. Much of this serpentine is the so-called "altered slate" bedrock of the Klondike and is accompanied here as elsewhere by its natural attendant—bone asbestos. A remarkable feature of the entire district is that it seems comparatively undisturbed by volcanic action. Except at the White Horse and Five Fingers where basalt and some of the conglomerates appear I have noticed no formations older than the hornblende gneiss of the Montebian. The lack of volcanic action with its attendant fissuring accounts for the small number of well defined quartz veins appearing and it is more than possible that the concentrate and amalgamates from the innumerable low-grade sulphide "wash veins" of the imperfectly mixed diorite may have furnished the placer gold of the district and the great long sought "mother lode" never be found.

Yours Respectfully,
J. WILLIAMS RYDER, M. E.

A Short But True Story.

Milley Lane started from Seattle last spring—we will call her Milley Lane because that is not her name; we cannot advertise these people. She is a pretty faced girl of German antecedents and of good reputation. The party she came in with was well fixed and had several ladies among their number. Milley was quite popular and proved herself adaptable and industrious. All went well as a marriage bell until thirty miles from Dawson. A rock—a rock—outside all lost—a wet shivering crowd on the bank with no provisions and hardly enough clothes on their backs to protect them from mosquitoes. Plying passers-by bring this girl of 18 summers to Dawson. With clothes all dragged and shabby and without a change of raiment she sought work for three long days. Pocket book and stomach empty, and employment refused, on the evening of the third day Milley found herself on the bank of the river with two courses open to her. She could either jump into the river or go to board with one of the madams in Dawson's Whitechapel. Long was the matter debated in her mind, but at last a youthful love of life triumphed. Within an hour the girl was seen bathed and dressed in satins and laces, her beauty enhanced by handsome apparel and the hair-dresser's art. Traff acquaintances were shocked, and when spoken to, the girl broke completely down and dissolved in tears. This is all true, happened last week and hardly forms an incident of one chapter of Dawson's history.

GOLD NO LEGAL TENDER.

Judge McGuire Decides an Important Case, Which is of Interest.

The case of Hebb & Healy has been decided on its merits by Judge McGuire, who took occasion to remark during the case that if the point was ever brought up he would have to decide that gold-dust was not a legal tender. The case in hand, however, did not depend upon the tender of a price at all. It appears that in the first place Monahan owned the claim over which the controversy arose. Monahan secured Hebb to go out and superintend the working of the mine, and as an inducement offered him the privilege of buying the mine at a stipulated price, if he wished to. Hebb went to work with some men, and after a while Monahan sold the claim to Captain Healy. When the wash-up came Hebb decided that the claim was a good one and would be a desirable possession, so he tendered the new owner the price stipulated by Monahan earlier in the season and was refused.

The judge held that an offer to sell at a certain price could not be construed into an option good for a stipulated period of time. An offer to sell was only good until withdrawn. By selling his claim to Healy Monahan had practically withdrawn his offer to sell to Hebb. It was then the judge suggested that even had the offer to sell been a written option, it would still have to rule that in tendering a bag of gold-dust Hebb had made no legal tender.

The Irving Departs.

Steamer Willie Irving arrived in port on Wednesday night and sailed for White Horse rapids on Thursday at 7 p. m. The Irving made a quick trip from White Horse but brought no mail and few passengers. Capt. Barrington was taken sick on the down trip and at last reports was confined to his bed with an attack of typhoid fever. The public generally will join with the Nigger in expressing the hope that the Captain's illness will be of short duration. His brother Sydney took Capt. Barrington's place on the Irving's present up river trip.

Cheap at the Price.

Water melons from the warm and sunny south—south from here any how—are for sale in Dawson. Think of a measly 10-cent water melon, carried a couple of thousand miles and shaken up like a patent churn and then offered for sale. In the United States, the land of water melons and warships, the melon would be prosecuted as a public nuisance—a threat to the general health. Not so in Dawson. Twenty-five dollars in good Eldorado dust was paid for that water melon by some one to whom its green curves evoked the recollection of the days when nuggets were not so plentiful but water melons were.

A GOOD PLAN OF ORGANIZATION.

A Miners' Association for the Abatement of Existing Ills.

A Plan Outlined Whereby a Stand Could be Taken for the Rights of the Miners—Intelligent Co-operation is Required.

The feeling that the miners must organize and present a solid front to resist oppressive legislation and still more oppressive interpretation of those laws, is growing fast. The Nigger has taken the trouble to have a plan of organization outlined. It is indebted for the following largely to Mr. Frank Dunleavy, of Johannesburg, Africa. It is not absolutely necessary that the plan given should be followed word for word, but it is necessary that something should be done on these lines at once. The intelligent discussion of our needs is all that will be required to evolve a plan from the sketch given which will secure to the district a wiser and more liberal government.

Preamble—Whereas the mining laws of the Yukon district of the Northwest Territory are unsatisfactory to the miners, having been framed by a government entirely ignorant of existing local conditions on the Yukon, climatic and otherwise; and which have worked and are working great injustice, hardships and oppression not only on the miners but on the whole community; and whereas the patience of the miners and residents in the district is sorely tried, in that petitions to Ottawa setting forth the grievances of the miners have been ignored or at least no action taken thereon; therefore it has been found imperative that the miners at once organize themselves into an association of miners.

Objects—The objects of the association shall be to provide for the welfare of the mining community and attend to the interests of its members and the mining industry.

It shall enlighten the government as to the needs of the district.

It shall endeavor to protect the miners from any further injustice of legislation; and,

It shall take steps to remove already existing burdens imposed in the shape of "the reservation for the crown of alternate blocks of ten claims" and also the "ten per cent. royalty" which is unanimously decided to be a tax on industry; and,

It shall proceed at once to see that competent administration immediately replaces incompetence.

It shall also assist in bringing about local government so that miners shall be able to legislate for their own wants.

It shall become an authentic source of correct information concerning the country, so that mining laws for the future shall be framed from intelligent knowledge;

It shall investigate any matter that is reported to it as being detrimental to the miners, as a body, or the mining industry;

It shall extend its protection to any member or other person who justifiably resists official rapacity—the case being first thoroughly investigated and charges proven true; and,

It shall proceed at once to erect suitable headquarters—buildings and equip the same for the purpose of the association.

It shall see that all properties are properly secured to the miners by deeds of trust;

It shall, for the protection of its members be registered under the "Friendly Societies" act; and,

It shall assume such other responsibilities as may be imposed upon it by its members from time to time.

The Name.—The name shall be "The Miners' Association of the Yukon District of the North West Territory."

Its Headquarters would, probably be in Dawson City.

Funds could be raised by enrolling members who would pay the sum of \$10 per year, and in return receive a certificate of membership which would entitle them to the protection of the association.

Government.—Until the organization shall be thoroughly perfected it should be governed by a president, vice-president, treasurer, secretary and a committee. The committee already in existence is a good one for the purpose, and it is suggested that they proceed along lines similar to the foregoing. It would be wise to secure the assistance of a competent organizer who could also be utilized in the capacity of a secretary. Upon the perfecting of the organization the committee could be indorsed, added to, or improved in other ways by election or members, and should then hold office for one year or until their successors are elected in the same way. A provision could be made so that continued absence from committee meetings would act as a forfeiture and someone substituted with more time for the affairs of the association. The details of the association can be worked out by the committee and presented for adoption to a meeting of members.

Persons Eligible.—Any male person should be eligible for membership who is engaged in mining operations—excepting government servants. Provision could be made for honorable membership; but it might be wise to make exceptions.

Elections.—It would, probably, be best that elections should take place in summer when miners have more leisure than at any other time of the year.

It is altogether probable that within a few days our friends up the gulch may have a proposition like the above presented to them in person. The miners' committee already in existence has about secured a site for a miners' association, and has taken other steps towards the amelioration of existing conditions. The foregoing is submitted to them as well as to individual miners.

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